

FABRICATION METHOD FOR ADHESIVE PRESSURE BONDING TWO COMPONENTS TOGETHER WITH CLOSED-LOOP CONTROL

5

ABSTRACT OF THE DISCLOSURE

Two components are bonded together in a bonding apparatus using a bonding medium of malleable metallic spheres and a curable adhesive. The two components are bonded by positioning the components in a facing-but-spaced-apart relation in the bonding apparatus with the spheres and the adhesive between the first component and the second component. The bonding apparatus forces the first component toward the second component with sufficient force to bond the spheres to the first component and to the second component, while monitoring at least one measured bonding reaction of the first component and the second component, and controlling the bonding apparatus responsive to the step of monitoring. The adhesive is thereafter cured, optionally with the bonding pressure released and the assembly removed from the bonding apparatus.

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